Application No. 10/643,952
Amendment dated January 14, 2005
Reply to Office Action mailed October 28, 2004

Amendments to the Claims:

Please cancel claims 11, 18, and 19, without prejudice.

Please amend claims 1-3, 6-12, and 15-17, as specified in the following listing of claims.

The listing of claims given below will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1.   (Currently amended) A method for operating fluorescent lamps with ~~the~~ aid of a ballast, which has an inverter having semiconductor switches, which are arranged in a bridge circuit, and having a control apparatus for the semiconductor switches, and at least one load circuit which is in ~~the~~ a form of a resonant circuit, is connected to the inverter, and in which at least one fluorescent lamp is operated, the inverter applying a radiofrequency current to the at least one fluorescent lamp, and ~~the~~ a power consumption of the at least one fluorescent lamp (LP) being set to a ~~predeterminable~~ predetermined value by means of a first control loop by varying ~~the~~ a frequency of the radiofrequency current,
        wherein, in addition, the power consumption of the at least one fluorescent lamp is stabilized at ~~the predeterminable~~ a predetermined value by means of a second control loop, which is passed through at shorter time intervals than the first control loop.

2.   (Currently amended) The method as claimed in claim 1, wherein for ~~the~~ a purpose of carrying out the first control loop, a desired value which ~~can be~~ is set in terms of its magnitude is compared at predetermined time intervals with an actual value which is derived from the power consumption, averaged over time, of the at least one fluorescent lamp, and a first manipulated variable for the control apparatus is formed from this actual value, and in which, for ~~the~~ a purpose of carrying out the second control loop at predetermined time intervals which are shorter than the time intervals for the first control loop, ~~the~~ a change in the power consumption of the at least one fluorescent lamp is evaluated for ~~the~~ a purpose of generating a second manipulated variable for the control apparatus, and the two manipulated variables are evaluated in order to generate control signals for regulating ~~the~~ a switching frequency of the semiconductor switches.

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3.   (Currently amended) The method as claimed in claim 1, wherein for the a purpose of carrying out the first control loop, a desired value which can be is set in terms of its magnitude is compared at predetermined time intervals with an actual value which is derived from the current flowing through the bridge circuit, and in which, for the a purpose of carrying out the second control loop at predetermined time intervals which are shorter than the time intervals for the first control loop, the a change in the current flowing through the bridge circuit is evaluated.

4.   (Original) The method as claimed in claim 3, wherein the actual value for the first control loop is derived from the current flowing through the bridge circuit by means of a first low-pass filter.

5.   (Original) The method as claimed in claim 3, wherein the actual value for the first control loop is derived from the current flowing through the bridge circuit by means of a first digital filter.

6.   (Currently amended) The method as claimed in claim 2, wherein during the second control loop, a comparison of the desired value and the actual value is carried out, an actual value being derived from the current flowing through the bridge circuit at the an end of each predetermined time interval and this actual value being compared with the actual value of the directly preceding time interval acting as the desired value, and the second manipulated variable for the control apparatus being generated therefrom.

7.   (Currently amended) The method as claimed in claim 4, wherein the actual value for the second control loop is derived from the current flowing through the bridge circuit by means of a second low-pass filter, the a time constant of the second low-pass filter being smaller than the a time constant of the first low-pass filter.

8.   (Currently amended) The method as claimed in claim 5, wherein the actual value for the second control loop is derived from the current flowing through the bridge circuit by means of a second low-pass filter (R4, C4), the a time constant of the second low-pass filter being smaller than the a time constant of the first low-pass filter.

9.   (Currently amended) The method as claimed in claim 1, wherein the predetermined time intervals of the first control loop are from 1 ms to 2 ms long.

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10.   (Currently amended) The method as claimed in claim 1, wherein ~~the~~ predetermined time intervals of the second control loop are from 50 μs to 200 μs long.

11.   (Canceled)

12.   (Currently amended) The method as claimed in claim 2, wherein for ~~the~~ a purpose of carrying out the first control loop, a desired value which ~~can be~~ is set in terms of its magnitude is compared at predetermined time intervals with an actual value which is derived from the current flowing through the bridge circuit, and in which, for ~~the~~ a purpose of carrying out the second control loop at predetermined time intervals which are shorter than the time intervals for the first control loop, ~~the~~ a change in the current flowing through the bridge circuit is evaluated.

13.   (Previously presented) The method as claimed in claim 12, wherein during the second control loop, a comparison of the desired value and the actual value is carried out, an actual value being derived from the current flowing through the bridge circuit at the end of each predetermined time interval and this actual value being compared with the actual value of the directly preceding time interval acting as the desired value, and the second manipulated variable for the control apparatus being generated therefrom.

14.   (Previously presented) The method as claimed in claim 3, wherein during the second control loop, a comparison of the desired value and the actual value is carried out, an actual value being derived from the current flowing through the bridge circuit at the end of each predetermined time interval and this actual value being compared with the actual value of the directly preceding time interval acting as the desired value, and the second manipulated variable for the control apparatus being generated therefrom.

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15. (Currently amended) The method as claimed in claim 13, wherein the actual value for the second control loop is derived from the current flowing through the bridge circuit by means of a second low-pass filter, ~~the~~ a time constant of the second low-pass filter being smaller than ~~the~~ a time constant of the first low-pass filter.

16. (Currently amended) The method as claimed in claim 14, wherein the actual value for the second control loop is derived from the current flowing through the bridge circuit by means of a second low-pass filter, ~~the~~ a time constant of the second low-pass filter being smaller than ~~the~~ a time constant of the first low-pass filter.

17. (Currently amended) The method as claimed in claim ~~6wherein~~ 6, wherein the actual value for the second control loop is derived from the current flowing through the bridge circuit by means of a second low-pass filter (R4, C4), ~~the~~ a time constant of the second low-pass filter being smaller than ~~the~~ a time constant of the first low-pass filter.

18. (Canceled)

19. (Canceled)